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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Stein A. Lundby

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EXAMINER

CHAN, RICHARD

ART UNIT

PAPER NUMBER

2618

NOTIFICATION DATE

DELIVERY MODE

12/02/2011

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

us-docketing@qualcomm.com

Office Action Summary

Application No.

09/782,751

Applicant(s)

LUNDBY, STEIN A.

Examiner

RICHARD CHAN

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 September 2011.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ An election was made by the applicant in response to a restriction requirement set forth during the interview on ____; the restriction requirement and election have been incorporated into this action.
- 4) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 5) ☒ Claim(s) 1-4, 11-26, 28, 29, 33, 34, 38, 39, and 42-47 is/are pending in the application.
- 5a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 6) ☒ Claim(s) 11, 12, 16, 18, 22, 24, 46 and 47 is/are allowed.
- 7) ☒ Claim(s) 1-4, 13-15, 17, 19-21, 23, 25, 26, 28, 29, 33, 34, 38, 39 and 42-45 is/are rejected.
- 8) ☐ Claim(s) ____ is/are objected to.
- 9) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 10) ☐ The specification is objected to by the Examiner.
- 11) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 12) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____. |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Response to Arguments

1. Regarding applicant's arguments on page 11 and 12, the applicant states that claims 1, 4, 13, 17, 23, 25, 26, 42 and 43, each include features of receiving or transmitting a forward link power control instruction on a forward link common channel, specifically wherein the applicant argues that the Tiedeman reference does not specifically disclose wherein forward link power instruction received on a forward link common channel. The claimed subject matter however discloses "...a forward link power control instruction received on a forward link common channel, wherein the apparatus shares the forward link common channel with at least ONE remote station;"

The examiner points the applicant to the Tideman reference, specifically Col.4 line 55-65, wherein the reference specifically disclose wherein a base station shares a forward link power control instruction is received on a forward link channel using the IS-95 CDMA based digital cellular standard. (Col.6 line 49-65)

The Tiedeman reference continues to disclose in Col.6 line 10-16, wherein reverse link power control bits along with the data on the forward traffic channel, specifically wherein the reverse control bits are used by the remote station to control its transmission power so as to maintain the desired level of performance while minimizing the interference to other remote stations in the system.

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And the Tiedeman reference, Col.6 line 23-30 specifically discloses wherein the in the exemplary embodiment the power control bits are transmitted by a base station to multiple remote stations at the same time.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this

Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-4, 13-15, 17, 19-21, 23, 25, 26, 28, 29, 33, 34, 38,39, and 42-45 are rejected under 35 U.S.C. 102(b) as being anticipated by Tiedemann (US ,396,867).

Regarding claims 1, 13, 17, 19, 23, 25 Tiedemann teaches a remote station apparatus (element 6) comprising: a link quality estimation unit operative to generate a link quality estimate in response to a forward link power control instruction received on a forward link common channel 10; (Col.7 line 19-26; quality of the channel is inferred from the measured amplitude of the reverse link power control bits) and

a power control unit coupled to the link quality estimation unit, the power control unit operative to generate a reverse link power control instruction in

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response to the link quality estimation, (Col.6 line 13-16; reverse line power control bits used to adjust the transmission power of the base stations)

wherein the reverse link power control instruction includes one or more commands configured to adjust a transmit power of the forward link at a base station. (Col.4 line 58-65; reverse line power control bits used to adjust the transmission power of the base stations) and (Abstract) and (Col.7 line 31-57)

Regarding claims 2, 14, 20, Tiedemann discloses the apparatus of claims 1, 13, and 19 respectively, wherein the apparatus controls transmission power of the reverse link power control instruction on a reverse link in response to the forward link power control instruction (Col.7 line 19-26; quality of the channel is inferred from the measured amplitude of the reverse link power control bits)

Regarding claims 3, 15, 21, Tiedemann teaches the apparatus of claims 1, 13, and 19 respectively, Tiedemann continues to disclose the apparatus transmits the reverse link power control instruction on a reverse link. (Col.6 line 13-16; reverse line power control bits used to adjust the transmission power of the base stations)

Regarding claims 4, 26, Tiedemann teaches an apparatus (element 6) comprising: a determination unit 120 operative to determine a reverse link power control instruction received on a reverse link for base station transmission on a

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forward link; (Col.7 line 19-26; quality of the channel is inferred from the measured amplitude of the reverse link power control bits) and

an adjustment unit coupled to the determination unit, the adjustment unit operative to adjust a power level of the a forward link power control instruction based on the reverse link power control instruction; (Col.6 line 13-16; reverse line power control bits used to adjust the transmission power of the base stations) and

a transmitter operative to transmit the forward link power control instruction on a forward link common channel. (Col.4 line 58-65; reverse line power control bits used to adjust the transmission power of the base stations) and (Abstract) and (Col.7 line 31-57)

Regarding claims 28 and 33 Tiedemann teaches the apparatus of claims 1 and 13, wherein the link quality estimation unit is operative to generate the link quality estimation based on a received power level of the forward link power control instruction. (Col.4 line 58-65; reverse line power control bits used to adjust the transmission power of the base stations)

Regarding claim 29, Tiedemann teaches an apparatus (element 6) comprising of claim 4, wherein the forward link power control instruction was received on a forward link common channel. (Col.7 line 19-26; quality of the channel is inferred from the measured amplitude of the reverse link power control bits)

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Regarding claims 34 and 39, Tiedemann teaches the method of claim 17 and 23 respectively, wherein the determination comprises extracting the reverse link power control instruction from a signal received on the reverse link. (Col.6 line 13-16; reverse line power control bits used to adjust the transmission power of the base stations)

Regarding claim 38, Tiedemann teaches the apparatus of claim 19, wherein the means for generating a link quality estimation unit are for generating the link quality estimation based on a received power level of the forward link power control instruction. (Col.7 line 19-26; quality of the channel is inferred from the measured amplitude of the reverse link power control bits)

Regarding claim 42, Tiedemann teaches a remote station apparatus 6, comprising: a link quality estimation unit 120 operative to generate a link quality estimation in response to a forward link power control instruction received on a forward link; (Col.7 line 19-26; quality of the channel is inferred from the measured amplitude of the reverse link power control bits)

a power control unit coupled to the link quality estimation unit, the power control unit operative to generate a reverse link power control instruction in response to the link quality estimation; and (Col.6 line 13-16; reverse line power control bits used to adjust the transmission power of the base stations)

one or more antennas configured to receive the forward link power control instruction on the forward link, wherein the reverse link power instruction includes

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one or more commands configured to adjust a transmit power of the forward link at a base station. (Col.4 line 58-65; reverse line power control bits used to adjust the transmission power of the base stations) and (Abstract) and (Col.7 line 31-57)

Regarding claim 43, Tiedemann teaches a base station apparatus, comprising:

a determination unit operative to determine a reverse link power control instruction received on a reverse link for base station transmission on a forward link; (Col.7 line 19-26; quality of the channel is inferred from the measured amplitude of the reverse link power control bits)

an adjustment unit coupled to the determination unit, the adjustment unit operative to adjust a transmission power level of a forward link power control instruction based on the reverse link power control instruction, and one or more antennas configured to receive the reverse link power control instruction on the reverse link; (Col.6 line 13-16; reverse line power control bits used to adjust the transmission power of the base stations) and

a transmitter operative to transmit the forward link power control instruction on a forward link common channel. (Col.4 line 58-65; reverse line power control bits used to adjust the transmission power of the base stations) and (Abstract) and (Col.7 line 31-57)

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Regarding claim 44. Tiedemann teaches a machine-readable medium embodying a method for power control in a remote station, the method comprising:

generating a link quality estimation in response to a forward link power control instruction received on a forward link common channel, (Col.7 line 19-26; quality of the channel is inferred from the measured amplitude of the reverse link power control bits)

wherein the link quality estimation is a SNR and the remote station shares the forward link common channel with at least one other remote station; and

generating a reverse link power control instruction in response to the link quality estimation (Col.6 line 13-16; reverse line power control bits used to adjust the transmission power of the base stations),

wherein the reverse link power control instruction includes one or more commands configured to adjust a transmit power of the forward link at a base station. (Col.4 line 58-65; reverse line power control bits used to adjust the transmission power of the base stations) and (Abstract) and (Col.7 line 31-57)

Regarding claim 45, Tiedemann teaches a remote station, comprising:

a link quality estimation unit operative to generate a link quality estimation in response to a forward link power control instruction received on a forward link common channel, (Col.7 line 19-26; quality of the channel is inferred from the measured amplitude of the reverse link power control bits)

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wherein the link quality estimation is a SNR and the remote station shares the forward link common channel with at least one other remote station;

a power control unit coupled to the link quality estimation unit, the power control unit operative to generate a reverse link power control instruction in response to the link quality estimation; (Col.6 line 13-16; reverse line power control bits used to adjust the transmission power of the base stations) and

one or more antennas configured to receive the forward link power control instruction on the forward link, wherein the reverse link power control instruction includes one or more commands configured to adjust a transmit power of the forward link at a base station. (Col.4 line 58-65; reverse line power control bits used to adjust the transmission power of the base stations) and (Abstract) and (Col.7 line 31-57)

Allowable Subject Matter

4. Claims 11, 12, 16, 18, 22, 24, 46 and 47 are allowed.

5. The following is an examiner's statement of reasons for allowance:

The prior art discloses an apparatus comprising: a determination unit operative to determine a reverse link power control instruction received on a reverse link for base station transmission on a forward link; an adjustment unit coupled to the determination unit, the adjustment unit operative to adjust a transmission power

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level of a forward link power control instruction based on the reverse link power control instruction.

However the prior art does not specifically disclose wherein the transmission power level of the forward link power control instruction is initially set to a reference value; and a transmitter operative to transmit the forward link power control instruction on a forward link control channel., wherein the forward link common channel is shared by a plurality of remote stations.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to RICHARD CHAN whose telephone number is (571)272-0570. The examiner can normally be reached on Mon-Fri 10AM-6PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Temesghen Ghebretinsae can be reached on 571-272-3017. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/RICHARD CHAN/
Examiner, Art Unit 2618
11/30/2011

/TEMESGHEN GHEBRETINSAE/
Supervisory Patent Examiner, Art Unit 2618
11/29/11R